

PHENIX WEEKLY PLANNING



Jan. 16, 2014
Don Lynch

- Finish Pink/White/Blue Sheets
- Plan MPC-Ex FEM installation platform
- Continue F/VTX commissioning
- Prepare for start of flammable gas
- Finish sPHENIX Prototype assembly and operational tests and prep for shipment to FermiLab
- End of Shutdown Party (Lunch time Friday 1/17)

Next Week

- Martin Luther King Holiday Lab Closed
- Build MPC-Ex FEM installation platform
- Install MPC-Ex FEM
- Continue F/VTX commissioning
- Start of flammable gas
- Ship sPHENIX Prototype assembly to FermiLab

VTX/FVTX commissioning

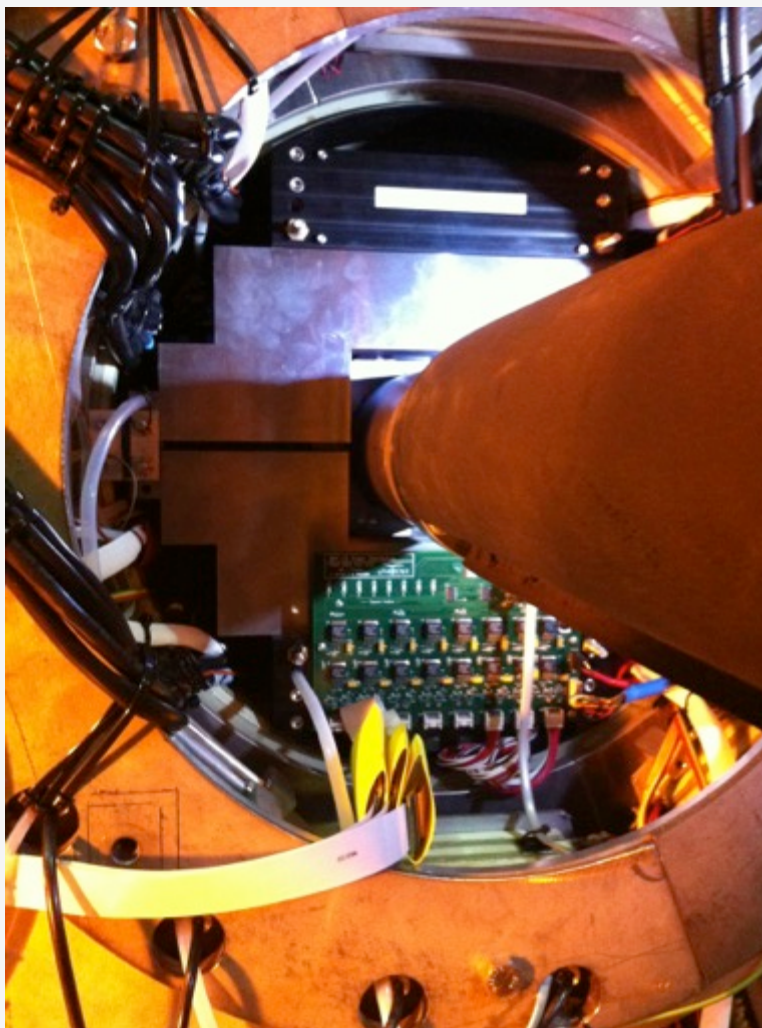


To Be Closed tomorrow

Commissioning Tests continue

MPC-Ex Initial (Partial) Installation

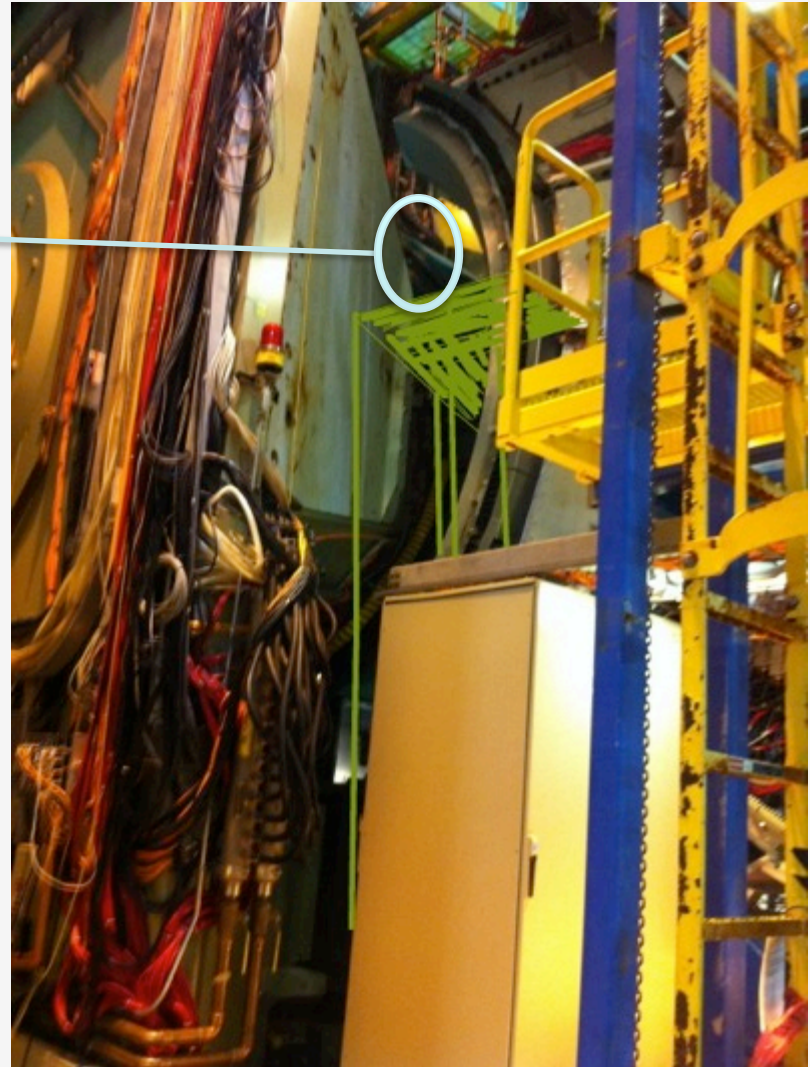
PHENIX - PROGRESS REPORT - NOV 4



Mechanical installation complete
Services connected
Rack assembly & FEM assembly in progress

Need a custom
Scaffold platform to install
FEM boxes in this area

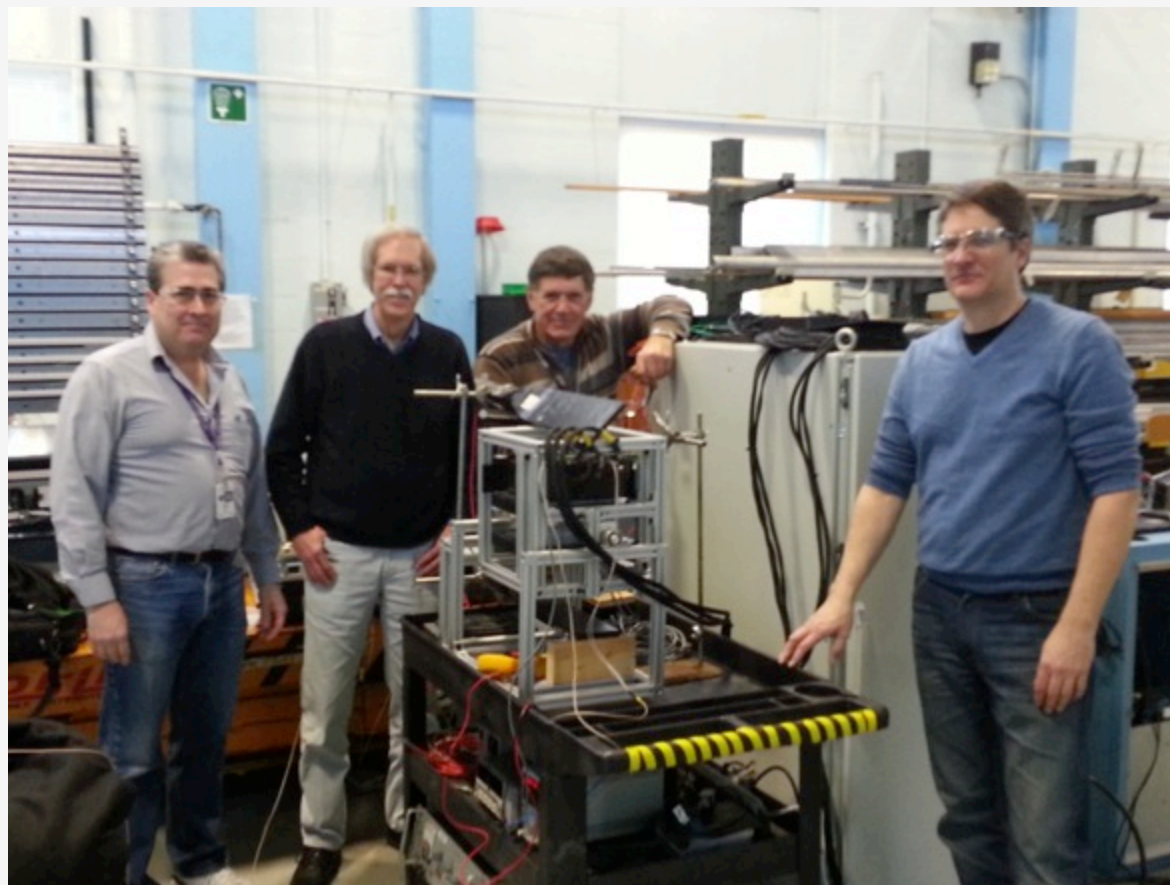
Scaffold to use standard 5 - 6
ft long planks with safety rails
and kick plates supported by
unistrut legs cross braced .
Access from mid EC platform



2 5'-6' platforms in an "L" shape to
access from the EC midlevel platform

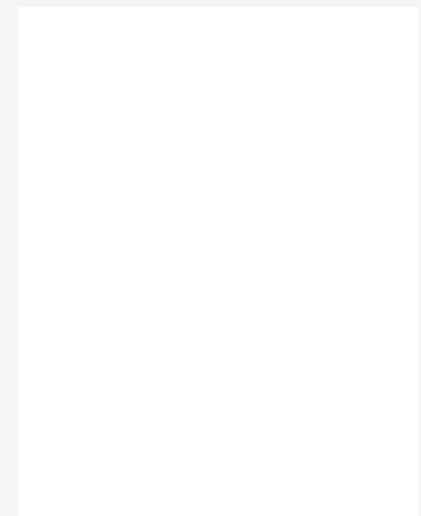
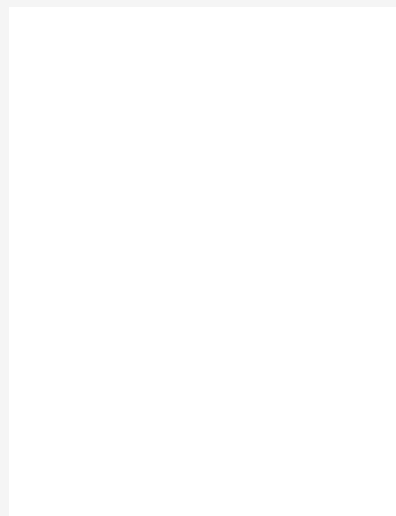
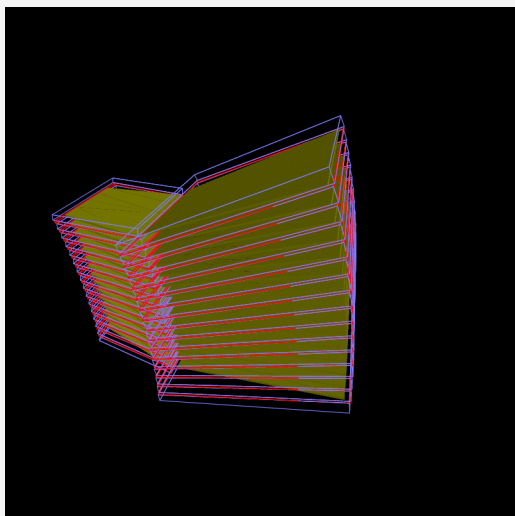
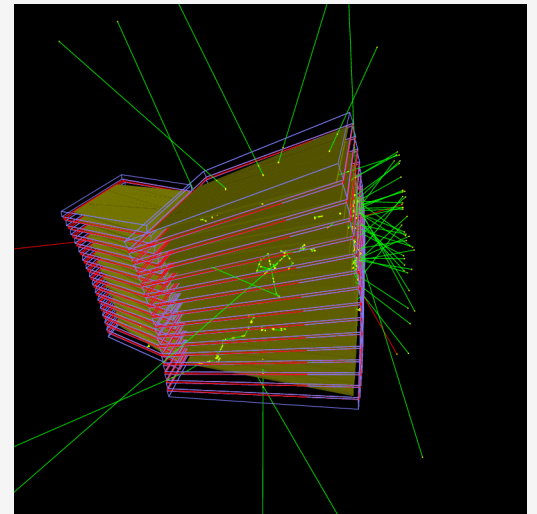
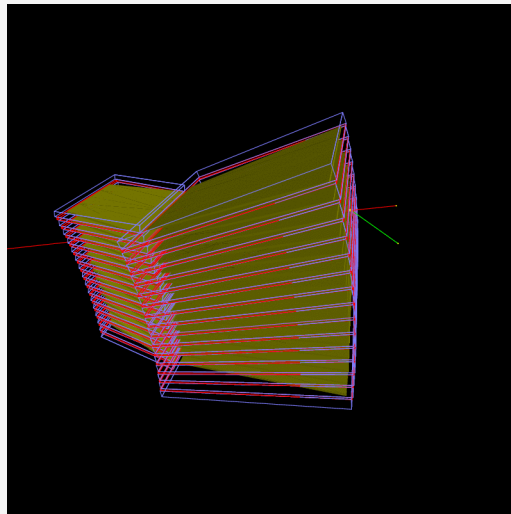
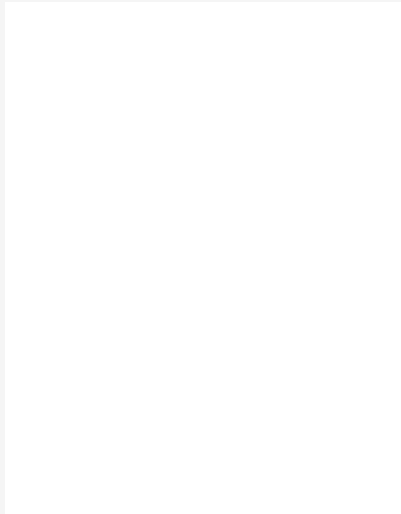


EMCal Ready for Testing

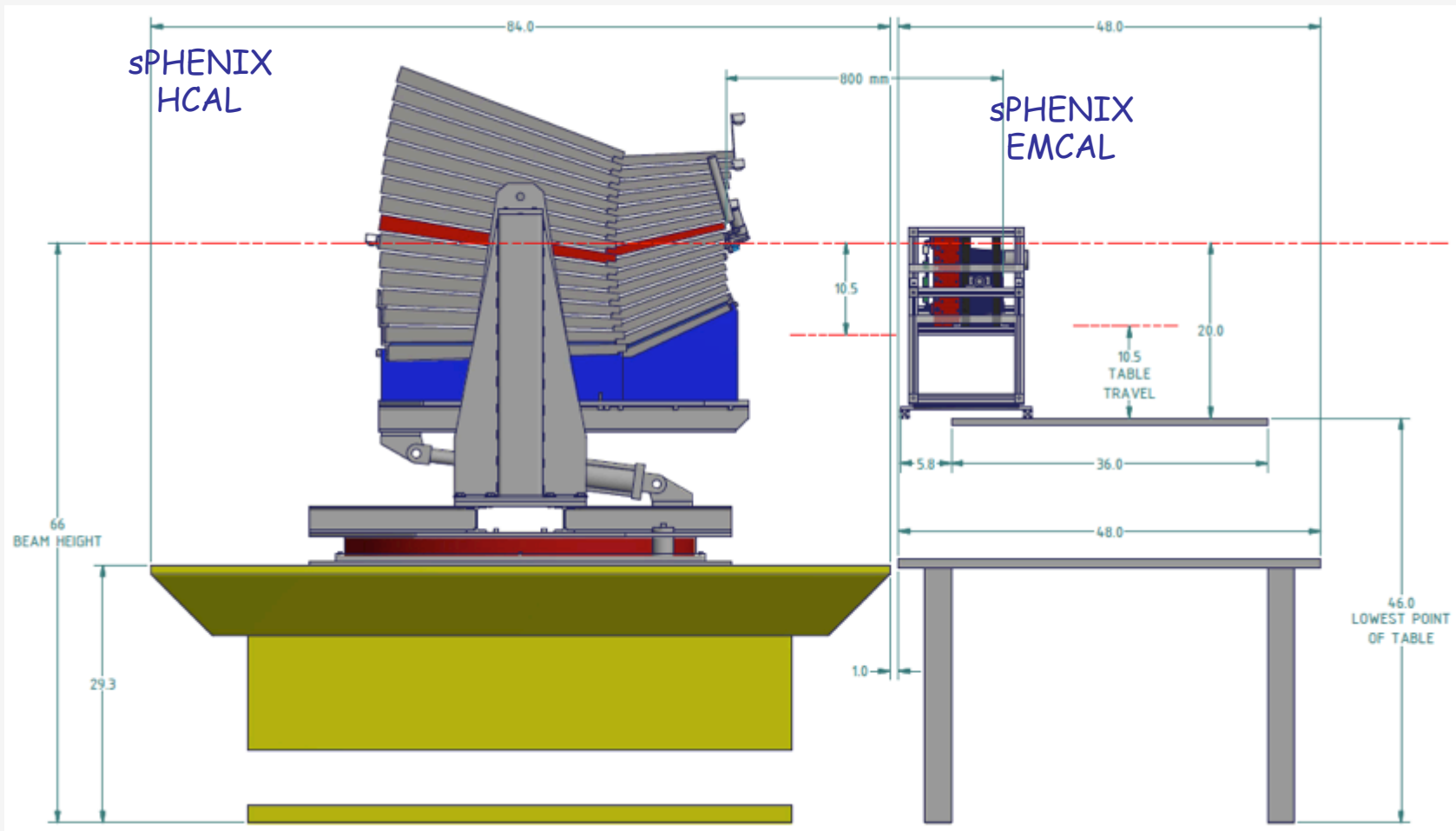


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TECHNICAL REPORT NO-14



Fermilab Beam Test



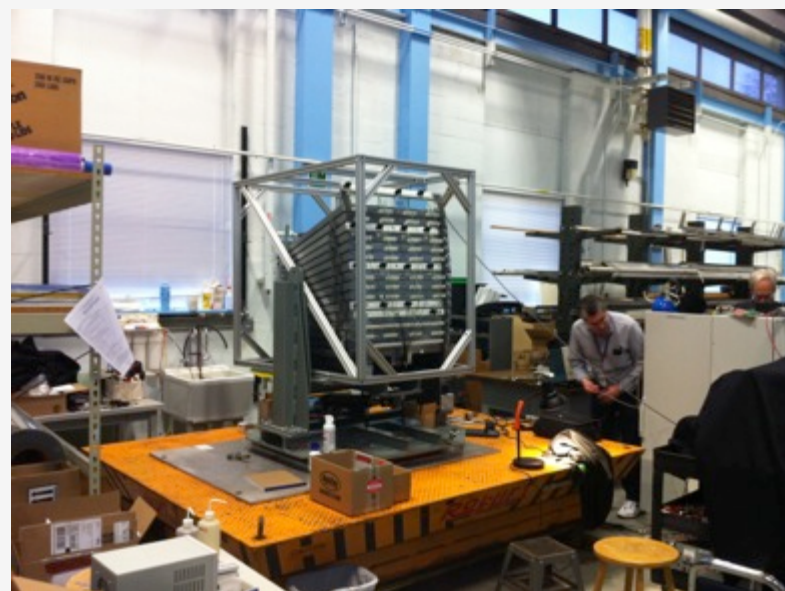
Test of combined EMCAL and HCAL prototypes at Fermilab in Feb 2014
(sPHENIX 2/5-2/25, STAR 2/26-3/18)

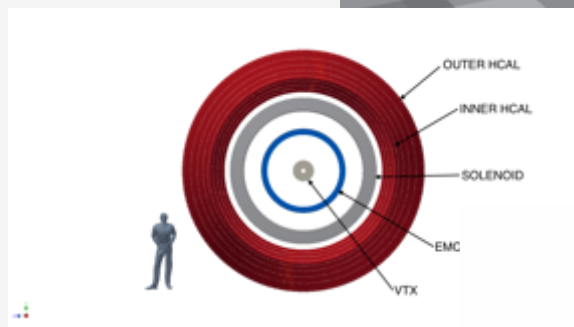
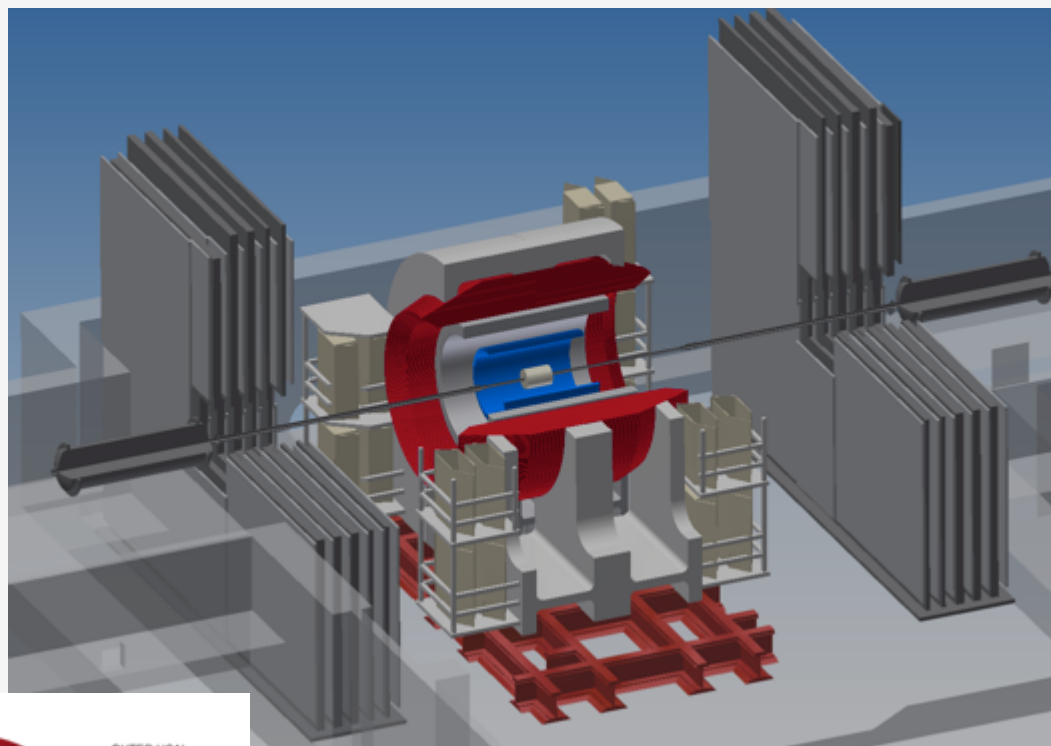
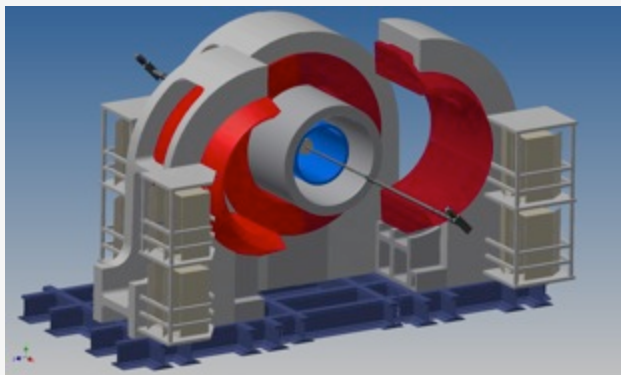
1/16/2014



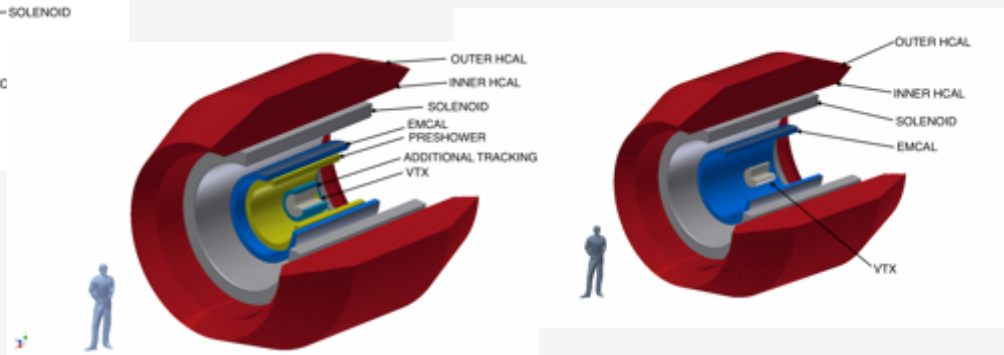
sPHENIX Prototypes:

Almost ready for FermiLab tests

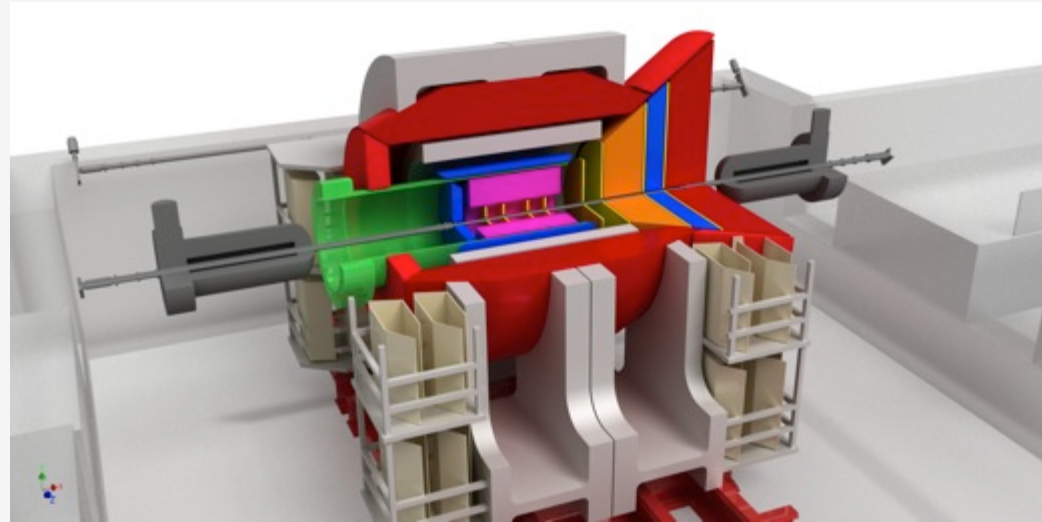




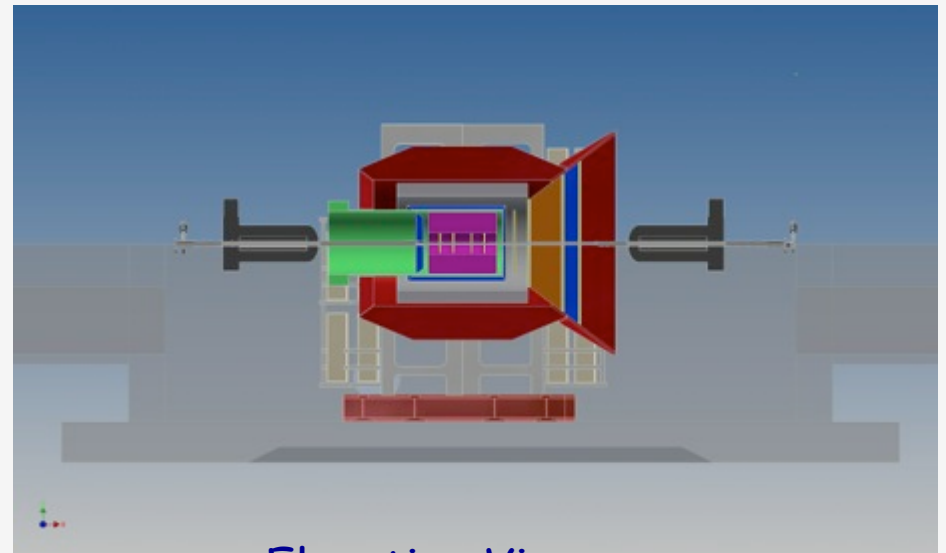
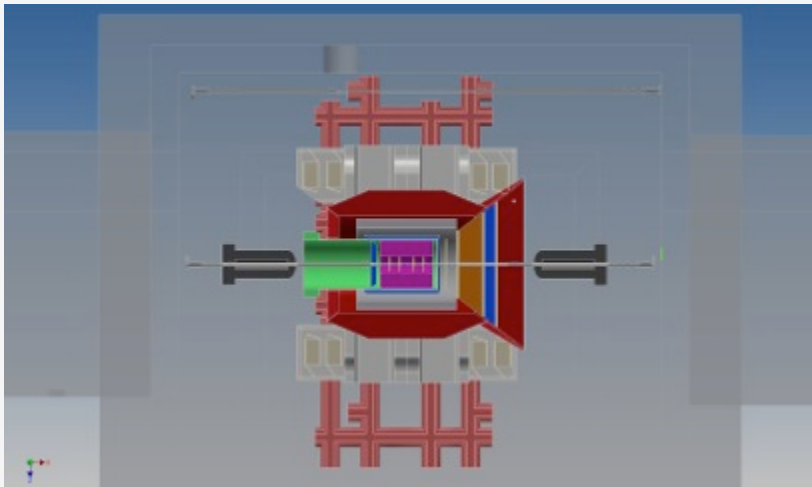
sPHENIX Modeling
support for
updated MIE



ePHENIX

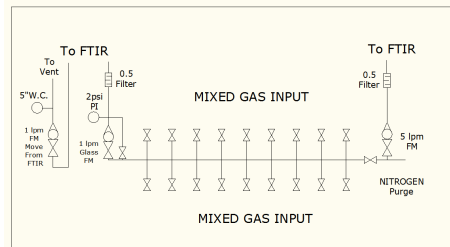


Plan View



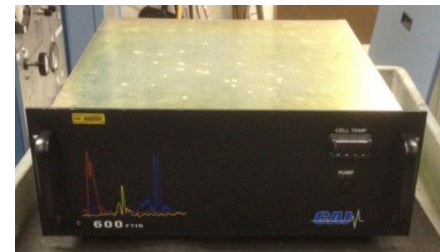
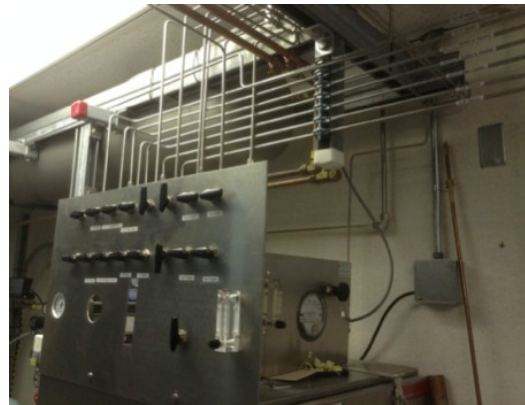
Elevation View

Need to complete Analyzer piping



Simple Manual Distribution Panel

System almost completed.
Will be ready for run 14



Remaining 2013 Shutdown Schedule

TECHNICAL SUPPORT NO. 14

VTX/FVTX Bias, LV and signal Cabling and Cooling distribution	Done
MPC-Ex LV, Bias and signal cabling and cooling distribution	Done
MPC-Ex installed acceptance tests	Done
Remove and stow station 1 south scaffolding	Done
Prep for EC roll in (remove fibers, cooling water and gas)	Done
Remove manlifts from IR	Done
Remove deck plates from IR	Done
Move MuID Collars into IR hold position	Done
Remove 12 ton cart from IR	Done
Roll in EC to run position	Done
Re-connect gas sniffers, water, elect., gas, fibers to EC	Done
Fold down EC platforms & reinstall dumb waiter (carpenters)	Done
Reconnect EC dumbwaiter lift wiring and TOF blowers	Done
Move MMS to run position	Done
Install the MuID collars	Done
DC West wire repairs	Done
Restore all PHENIX Elec. from shutdown safe modes to operating modes	Done
Christmas Holiday	Done
New Year's Day Holiday	Done
Assemble large shielding wall and install plug door (riggers)	Done
Start Watch Shifts	Started
sPHENIX HCal & EMCal Prototype Assembly/test	8/19-1/20/2014
Pre-run commissioning and detector prep testing for run 14	12/9-1/31/2014
Pink sheets	Done
White Sheets	Done
Blue Sheets	1/6-1/17/2014
End of Shutdown Party	In Progress
Start Flammable gas flow	1/21/2014 ?
Close shield wall, install radiation interlocks and prepare for run 14	1/31/2014
Start run 14	2/3/2014

PHENIX Annual Safety Review: Action Items

- Provide a procedure to test the window washer interlocks (Lynch Jan 15, 2014)
- Add (load limit) weight postings on the new gratings covering the cables adjacent to the sill (Phillips/Lynch Jan 15, 2014)
- Complete the platform gates installation (Phillips Jan 15, 2014)
- Provide the new flammable gases leak rates (Pisani, Jan 10, 2014)
- Provide the updated gas usage quantities (Pisani Jan 10, 2014)
- Add a caution sign not to overfill the NOVEC bottles (Pisani Jan 10, 2014)
- Carry out the Blue Sheeting (CAS, Phillips Feb 1, 2013)
- Document the new ethane installation and leak and pressure testing (Biggs Jan 15, 2014)
- Provide updated sweep procedures (Sampson Jan 15, 2014) ???
- Carry out an inspection of the installed platform gates (Cirnigliaro Feb 1, 2014)

General:

- Update the PHENIX ECR. (Craner, Jan 15, 2014) ??
- Update the PHENIX work plan if necessary (Cirnigliaro Jan 15, 2014) DONE
- Carry out a magnetic safety review (Phillips Jan 10, 2014) DONE
- A walk through of the PHENIX detector prior to introduction of flammable gas. (Makdisi et al Jan 10, 2014)
- Update the documented work procedures. (Lynch Continuing) In Progress
- Establish trained PHENIX watch shifts. (O'Brien Jan 10, 2014) DONE

2014 planned Technical Support and Shutdown Activities

TECHNICAL SUPPORT 2014

Support for run 14	2/3-2/25/2014
Support for sPHENIX prototype tests at FermiLab	1/21-2/25/2014
Procure & Fabricate parts for MPC-Ex North and South	1/1/2014-6/30/2014
Assemble & test MPC-Ex South, ready for installation	3/1-7/1/2014
Assemble & test MPC-Ex North, ready for installation	7/1-9/25/2014
Start of Shutdown Tasks (purge flammable gas, disassemble and stow shield wall, remove collars, move EC to AH, Move MMS south, etc.)	7/1 - 7/18/2014
Install scaffolding in Sta 1 South	7/25/2014
Remove MPC-Ex prototype, Install new MPC-Ex South	7/28-8/22/2014
Maint. & Repairs for MPC South, BBC South, RPC1 South, MuTr sta 1 South, as necessary	7/28-8/22/2014
Remove scaffolding from sta 1 south, Move CM South	8/25/2014
Install scaffolding in Sta 1 North	8/26-8/29/2014
Prep MPC-Ex North installation area	9/1-9/26/2014
Install new MPC-Ex North	9/29-10/17/2014
Remove Sta 1 North scaffolds, Move CM North	10/20-10/24/2014
Other detector support	TBD
Infrastructure Maintenance and Improvement	TBD
Decommissioning of obsolete PHENIX detector equipment	TBD
sPHENIX Support	on-going
End of Shutdown Tasks (Move MS north, roll in EC , install collars, remove 10 ton cart, plates and manlifts, build shield wall, etc.)	10/27-11/26/2014
Pink/White/Blue Sheets	1/17/2014
End of Shutdown Party	????
Start Flammable gas flow	????
Close shield wall, install radiation interlocks and prepare for run 14	12/31/2014
Start run 15	1/2/2015

If you missed the NPP all hands meeting yesterday, here is a synopsis:

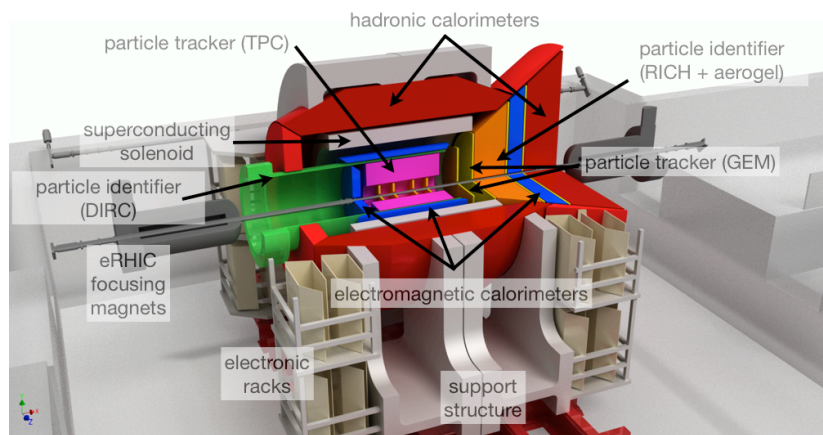
- Budget outlook is good for run 14 with 22 weeks of running
- Lab did fairly good on latest DOE performance evaluation
- Performance evaluations are done. Goal setting is next
- Safety: NPP did well (2 DART, 6 TRC)
- Accountability Initiative (??)
- New discipline policies (categories of bad behavior, alcohol and substance abuse, traffic, etc.
- RHIC to eRHIC Transition (see next 2 slides)

Run Schedule for RHIC

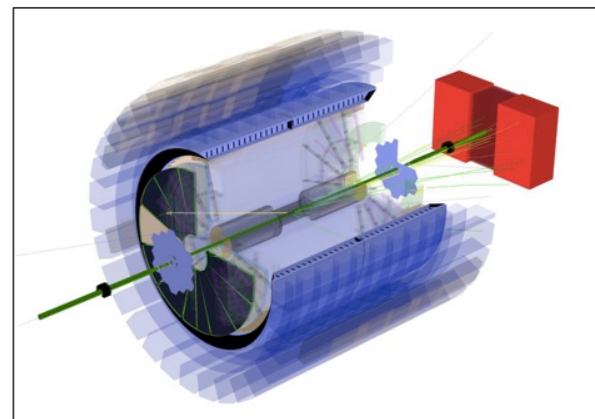
Years	Beam Species and Energies	Science Goals	New Systems Commissioned
2014	15 GeV Au+Au 200 GeV Au+Au	Heavy flavor flow, energy loss, thermalization, etc. Quarkonium studies QCD critical point search	Electron lenses 56 MHz SRF STAR HFT STAR MTD
2015-16	p+p at 200 GeV p+Au, d+Au, ³ He+Au at 200 GeV High statistics Au+Au	Extract $\eta/s(T)$ + constrain initial quantum fluctuations More heavy flavor studies Sphaleron tests Transverse spin physics	PHENIX MPC-EX Coherent e-cooling test
2017	No Run		Low energy e-cooling upgrade
2018-19	5-20 GeV Au+Au (BES-2)	Search for QCD critical point and onset of deconfinement	STAR ITPC upgrade Partial commissioning of sPHENIX (in 2019)
2020	No Run		Complete sPHENIX installation STAR forward upgrades
2021-22	Long 200 GeV Au+Au with upgraded detectors p+p, p/d+Au at 200 GeV	Jet, di-jet, γ -jet probes of parton transport and energy loss mechanism Color screening for different quarkonia	sPHENIX
2023-24	No Runs		Transition to eRHIC

eRHIC detectors

“ePHENIX”

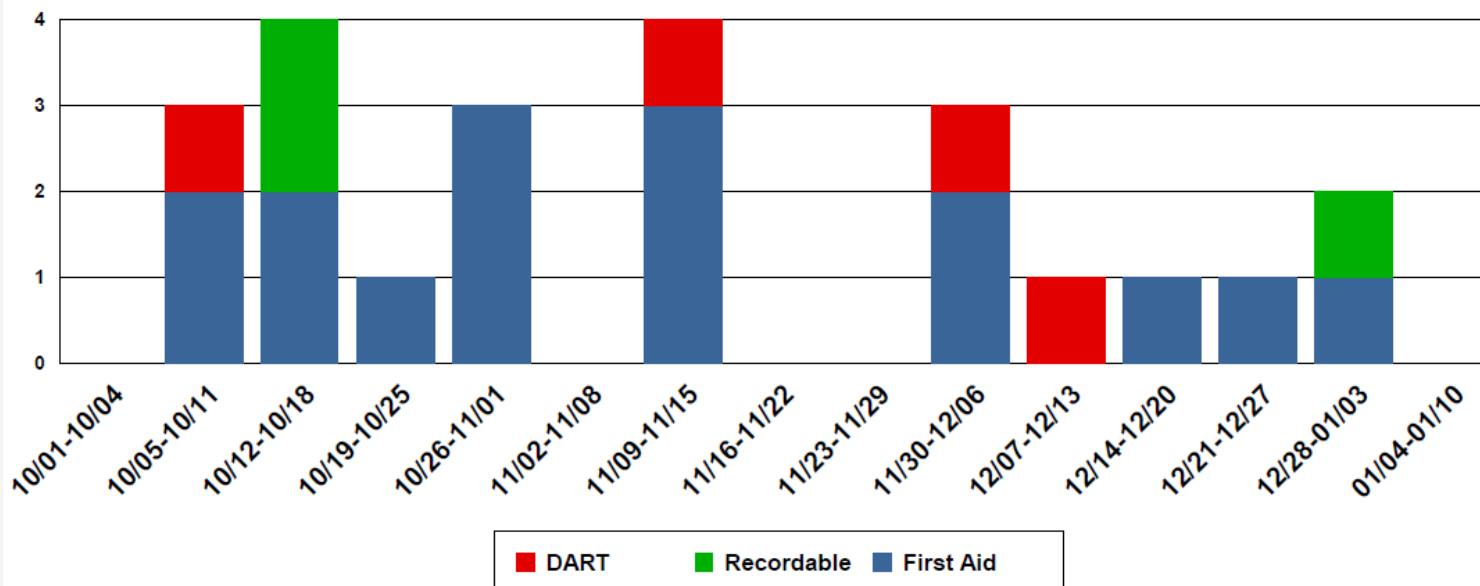


“eSTAR”



- Letters of Intent from both RHIC collaborations have produced benchmark designs with cost estimates.
- We are looking for a similar LoI document for a “from scratch” EIC detector developed by the EIC Task Force @ BNL.
- eRHIC detectors will be designed and built by new collaborations!

Injuries Per Week (FY)
As of 1/10/2014



Injury Status:

FY14 YTD: DART – 4, TRC – 7, First Aid – 16

FY13: DART – 14, TRC – 37, First Aid – 53

FY12: DART – 19, TRC – 38, First Aid – 69

FY13 Injury Listing: <https://intranet.bnl.gov/esh/shsd/seg/Occlnj/BNLInjuries.aspx>

Recent Injuries

		None
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Recent Events		
1/9/14	Non-Reportable	The windshield of a Bobcat was damaged when workers loading pallets into a dump truck inadvertently brought the windshield of the Bobcat into contact with the open dump truck lift gate, breaking the glass. They returned the Bobcat to the Heavy Equipment Machine Operator (HEMO) shop, and reported the event to their supervisor. The workers were wearing PPE, and there were no injuries. BNL Security was notified after the workers had returned and notified their supervisor. An investigation into this event has been initiated. (Event Link)
1/8/14	Non-Reportable	On January 8, 2014, at approximately 0700 hours, during monthly Preventive Maintenance on the Emergency Generator at Building 735, it was discovered that the starter batteries were not charged. Subsequent investigation determined that the battery charger had failed. Heavy Equipment Machine Operators (HEMOs) replaced the batteries to the generator and have installed a temporary charger. A replacement charger is on order. (Event Link)
1/6/14	Operational Emergency	Fire Rescue responded to Bldg. 522 for a Compressed Natural Gas (CNG) leak, which was reported to extension 2222. An Operational Emergency was declared after pressure relief valves at the CNG Facility released gas into the atmosphere, resulting in shelter in place notifications for Zones 5 and 12. The discharge was secured by Fire Rescue. There were no injuries. An investigation has been initiated. (Event Link)
1/4/14	Non-Reportable	A Chemistry building sprinkler pipe froze and leaked. The leak was repaired; the damage was minor, and there were no injuries. (Event Link)
1/4/14	Non-Reportable	On Jan. 4, a 1.25" domestic copper water line froze and leaked in the ceiling over apartment #30B. The site shift supervisor and plumber isolated the water source and staff services relocated the resident in an available apartment. The scene was triaged this morning (1/6/2014). There is significant water damage to the apartment. There is also damage to an adjacent apartment. The person occupying the adjacent apartment is currently out of the country. Some initial cleanup has been completed. The area will require further remediation. (Event Link)
1/4/14	Non-Reportable	An employee was pushing snow into a snow bank at Building 515. A Post Indicator Valve buried in the snow bank was damaged. (Event Link)
1/3/14	Non-Reportable	An employee was clearing snow with a plow from the Building 815 front parking lot. The snow was being pushed up to and around a light fixture. The 'breakaway base' gave way and the light pole toppled. (Event Link)

1/16/2014



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Where To Find PHENIX Engineering Info

Things are looking up for Run 14

And the sPHENIX Prototype Tests

Keep up the good work !



http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

1/16/2014



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